Telecommunications and Information Technology Planning

The telecommunications and information technology planning function represents the highest-level system or network perspective of the Institute. This work can be characterized generally as planning and analyzing existing, new, and proposed telecommunications and information technology systems, especially networks, for the purpose of improving efficiency and enhancing the technical performance and reliability of those systems. In many cases, ITS performs this work for both wireline and wireless applications. This portion of the ITS technical program encompasses work that is frequently referred to in industry as "systems engineering."

All phases of strategic and tactical planning are conducted under this work area; problem solving and actual implementation engineering also are done. ITS engineers identify or derive users' functional requirements and translate them into technical specifications. Telecommunication system designs, network services, and access technologies are analyzed, as well as information technologies (including Internet and Internet-related schemes). Associated issues, such as network management and control and network protection and privacy, also are addressed. Integration of individual services and technologies is a common task in many projects, along with the application of new and emerging technologies to existing applications.

Following is a summary of significant activities that occurred in the area of telecommunications and information technology planning during FY 2005. By far, telecommunications interoperability was the largest program area.

Areas of Emphasis

Interoperability Efforts for Justice/Public Safety/Homeland Security
The Institute conducts a broad-based technical program aimed at facilitating effective telecommunications interoperability and information-sharing among dissimilar wireless and information technology systems within the justice/public safety/homeland security community. ITS activities are sponsored by a number of Federal agencies and programs, and are planned and performed only after close coordination with local, State, tribal, and Federal practitioners. Technical thrusts within the program, which are described in separate sections on the following pages, include:

Engineering Support and Coordination

Information Technology Interoperability Standardization and Quality

Wireless Telecommunications Interoperability Standardization

Emergency Telecommunications Service (ETS)
The Institute develops and verifies ETS Recommendations for International Telecommunication Union - Telecommunication Sector (ITU-T) Study Group 9. A second project provides ETS expertise relating to ANSI-accredited Performance, Reliability, and Quality of Service Committee, PRQC (formerly T1A1). These projects are funded by the National Communications System (NCS).